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Tajikistan

Tajikistan is a mountainous country in Central Asia with little oil or natural gas, but with substantial hydroelectric power and significant undeveloped hydropower potential.

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GENERAL BACKGROUND

After becoming independent from the Soviet Union in 1991, Tajikistan descended into a civil war between Islamic conservatives and the secular government. Although a peace agreement between the United Tajik Opposition (UTO) and the government of President Emomali Rakhmonov was signed in 1997, implementation has progressed slowly, and Russian-led peacekeeping troops remain posted throughout the country.

Tajikistan has the lowest per capita gross domestic product (GDP) in the former Soviet Union, and the civil war, along with the loss of subsidies from Moscow and of markets for its products, served to gravely weaken the already crumbling Tajik economy. Tajikistan's economy is concentrated in a small number of industries, mainly cotton, hydroelectricity, and aluminum (the Tursunzoda aluminum smelting plant--TadAZ--is the world's largest such facility).

Tajikistan is faced with major problems in integrating refugees and former combatants into the economy, and both inflation (61% in 2000) and unemployment remain high. A modest economic recovery began

after Tajikistan concluded a loan agreement with the International Monetary Fund (IMF) in 1997, with the country's real GDP increasing by 8.3% in 2000 following 3.7% growth in 1999. However, the country continues to depend on aid from Russia, Uzbekistan, and international humanitarian assistance for much of its basic subsistence needs. The future of Tajikistan's economy and the potential for attracting foreign investment depend upon stability and continued progress in the peace process.

Tajikistan's energy sector is focused predominantly on hydroelectric power, which accounts for 98% of the country's electricity production. Oil and gas shortages are common, and electricity shortages are becoming a bigger problem. In response, in October 2000 President Rakhmonov signed a decree on the formation of the Ministry of Energy in an effort to unify state energy policy and to use the country's natural energy resources more effectively. In April 2001, Tajikistan reorganized its state coal, oil and gas production, and natural gas distribution enterprises in an attempt to improve the coordination of the activity of organizations in the energy system.

OIL

Tajikistan has a very small oil industry, with most of the country's production coming from the northern Leninobod Soghd Region. In 2000, Tajikneftegaz, which is responsible for all oil exploration, drilling, and production in Tajikistan, produced 18,427 metric tons of oil (370 bbl/d), which was 2.5% below the country's target production level. In the first quarter of 2001, Tajikistan produced an average of 336 bbl/d, continuing a trend that has seen the country's oil production drop off from 1,311 bbl/d in 1992. The country's 1992-1997 civil war, coupled with economic contraction and a lack of investment to maintain the oil sector's infrastructure, has caused oil production to decline by more than 70%.

Tajikistan consumed approximately 29,000 bbl/d of petroleum products in 2000. Since Tajikistan does not have a domestic refinery, all petroleum products must be imported. Uzbekistan supplies more than 70% of Tajikistan's oil demand, and overall, Commonwealth of Independent States (CIS) account for more than 97% of Tajikistan's oil product imports. In September 2000, an Austrian firm agreed to back Tajikistan's plans to build an oil refinery with a $3.5-million credit, but no further progress has been made to construct the refinery.

NATURAL GAS

Tajikistan has natural gas reserves of just 200 billion cubic feet (Bcf). Domestic gas production, which nearly came to a standstill during the civil war, inched up slightly in 2000, to 2.4 Bcf, from 2.1 Bcf the year before. In 2000, Tajikistan launched the Khoja Sartez gas field in the southern Khatlon Region, which, in combination with the increased utilization of the Qizil Tumshuq deposit in southern Khatlon Region's Kolkhozobod District, has led to increased natural gas production in 2001. In the first three months of 2001, Tajikistan produced 19.7 million cubic meters (0.7 Bcf) of gas, an increase of 17.7% over the same time period in 2000.

Despite the rise in gas production, Tajikistan's annual gas consumption of over 40 Bcf/year forces the country to rely heavily on natural gas imports from Uzbekistan and Turkmenistan. Natural gas pipelines run from Uzbekistan to Tajikistan's capital of Dushanbe, as well as through northern Tajikistan.

Tajikistan has a barter arrangement with Uzbekistan under which Tajikistan receives Uzbek gas in exchange for Uzbekistan's use of a rail transport corridor and gas pipeline across northern Tajikistan that links Uzbekistan's eastern territory with its gas fields.

Under an intergovernmental agreement between Tajikistan and Uzbekistan, Tajikistan was to receive over 12.3 Bcf of natural gas from Uzbekistan in 2001. In April 2001, Tajikkommunservis, the Tajik municipal state services concern, announced that nonpaying customers would be cut off because the country had already used 60% of the annual amount of gas from Uzbekistan. Residents of Dushanbe already were limited to 8 hours of gas per day during the winter, with residents outside the capital receiving even less gas.

By June 2001, Tajikistan, which owed Uzbekistan over $3.4 million for gas already supplied, had used more than 65% of the year's projected supplies. Tajikgaz, the state gas distribution company, blamed the high gas consumption and nonpayment by individual consumers on Soviet-era practices, when utilities were largely free. Tajikgaz authorities proceeded to cut natural gas supplies to homes and businesses in Dushanbe and surrounding regions. On July 8, 2001, Tajik Energy Minister Abdullo Yorov met with the chairman of Uzbekgaz to conclude a deal by which Uzbekistan agreed to supply an additional 100 million cubic meters (3.53 Bcf) to Tajikistan through September 2001.

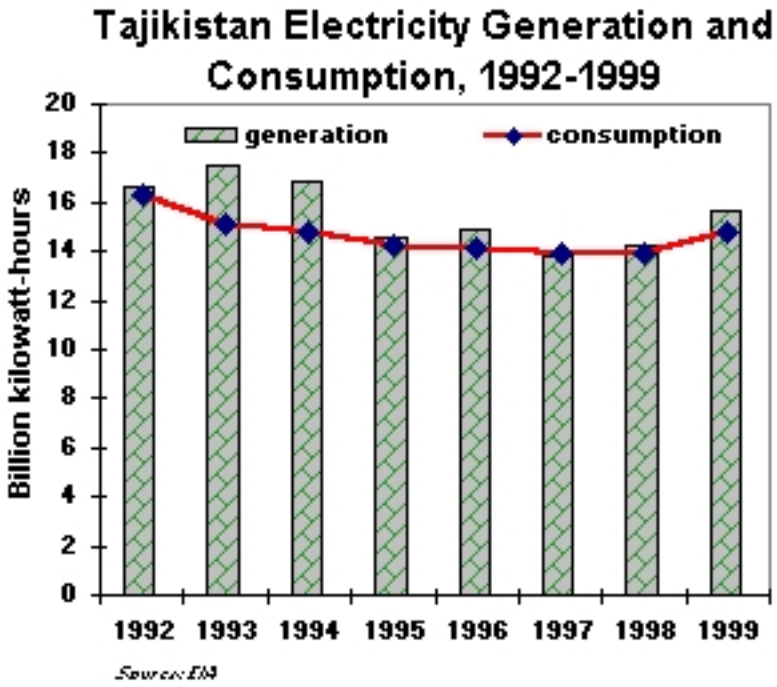
COAL

Coal production and consumption in Tajikistan have plummeted since the country's independence. Coal consumption fell from 251,000 short tons in 1992 to just 13,880 short tons in 1999. After 1991, when Tajikistan produced approximately 430,000 short tons of coal, the country's coal production declined for the seven consecutive years, to just over 11,000 short tons in 1998. Tajik coal production rebounded to 22,000 short tons in 1999 before slipping to 20,700 short tons in 2000.

Of this production, Leninobod Coal, a joint-stock company in the northern Soghd Region, produced 11,600 tons, while Fan-Yaghnob, a joint-stock company in the northern Soghd Region's Ayni District, produced 9,100 tons. Both Leninobod Coal and Fan-Yaghnob were grouped under Tajikistan's State Committee for Industry, but on April 16, 2001, President Rahmonov signed a resolution on the establishment of Tajikangisht, a state coal enterprise. Tajikangisht includes the Leninobod Coal and Fan-Yaghnob companies, along with the mines of the same name, as well as the Ziddi and Nazar-Ayloq coal fields in central Tajikistan.

ELECTRICITY

Tajikistan's total electricity-generating capacity in 1999 was 4.4 gigawatts (GW). Most of Tajikistan's electric power comes from the country's 7 large hydroelectric plants, which have a combined capacity of 4,050 megawatts (MW). The Nureksk hydroelectric plant, which has nine units of 300 MW each, accounts for nearly 70% of this power. Other hydroelectric plants include Golovnaya, Baipazan, Namadgud, Lenin, Pamir-1, and Qayroqqum. In 1999, hydroelectric power accounted for 15.3 billion kilowatt-hours (Bkwh) of the country's total 15.6 Bkwh for the year. Tajikistan also has several thermal power plants, with combined capacity of approximately 350 MW, that account for the remainder of the country's power-generating capacity.



Tajikistan has two power grids--a unified energy grid in the southern part of the country and a grid in the northern Soghd Region that is powered by the Qayroqqum hydroelectric station on the Syrdarya River. The Qayroqqum plant can cover only slightly more than 30% of the northern region's energy needs, forcing the northern region to import power from Uzbekistan. Since Tajikistan and Uzbekistan are intertwined geographically, their energy grids are connected in the Fergana Valley, allowing the two to export power to each other (Tajikistan also exports power to southern Kazakhstan under a barter arrangement). Uzbekistan provided 84% of Tajikistan's energy imports in 2000.

Barq-i Tojik is the state company that controls electricity generation, transmission, and distribution in Tajikistan. A significant portion of Tajikistan's power sector infrastructure is in poor condition as a result of the civil war and the lack of proper maintenance, which has contributed to increased energy losses of nearly 15% of generating capacity. Transformers are constantly breaking down due to overloads, and most power equipment has exhausted its service life--the Tajik government estimates that depreciation of energy equipment already has reached 75%.

The country's transmission and distribution problems were exacerbated by a drought in 2000, when low water levels at hydroelectric power stations put one station out of operation and strained Tajikistan's grid to the limit, leading to power cuts and supply restrictions. Tajikistan's Ministry of Energy issued limits for each region's energy consumption, and electricity prices were raised in April 2000 to limit demand. Industrial enterprises consume most of the electricity produced in Tajikistan, with the giant Tursunzoda aluminum plant alone consuming 40% of the country's entire electric power generation.

Severe weather and low water levels at the start of winter in 2000 led to a further 20% cut in the quota for electricity supplies to the regions. Some areas of the country had electricity for only a few hours a day

in the winter and early spring due to restrictions on consumption. In February 2001, the Nureksk hydropower plant was operating at only 40% of capacity, while the Qayroqqum hydropower plant was operating at just 30%, forcing the Tajik government to buy power supplies from Uzbekistan, Kyrgyzstan, and Turkmenistan.

Investment/Modernization/New Capacity

Tajikistan is hoping to increase its power-generating capacity and to reconstruct its energy grid by attracting foreign investment to the sector. Hydroelectric plants have been producing at less than half of their potential in recent months.

Potential investors, which include international financial organizations and neighboring countries, are demanding that Tajikistan's power sector be privatized. Potential investors also want Tajikistan to change its rate policy. Tajikistan's low tariffs for electricity have led to bill collection of nearly 50% of energy deliveries, a fairly high figures for CIS countries, but also huge losses for Barq-i Todjik since the rates do not cover production costs. In addition, Tajik industrial enterprises and residential customers owe Barq-i Todjik more than $100 million, which exceeds annual electricity exports. TadAZ and the Vakhsh nitrogen plant are the biggest debtors.

Nevertheless, Barq-i Todjik has embarked on a $62-million project to refurbish Tajikistan's electricity sector. The main components of the project are to rehabilitate the Nureksk hydroelectric power station and the Jangal and Novaya substations, to restore the power grid in the southern region of Tajikistan, to install electricity meters on inter-system transmission lines, and to improve the company's service. At the end of January 2001, the Islamic Development Bank allocated a $9.3-million credit to Barq-i Todjik, with plans for the rest of the money to come from the Asian Development Bank ($34 million), the Tajik government ($13.5 million), and a $6-million grant from the Swiss government.

Completion of the Rogunsk and Sangtuda hydroelectric power stations are priorities for Tajikistan. The Rogunsk plant, which was begun during the Soviet period, has a design capacity of 3.6 GW, which will make it the 15th largest hydroelectric plant in the world. Construction of the 670-MW Sangtuda station, which also was begun before independence, has resumed with Russian and Iranian financing. Approximately $480 million will be needed to complete the Sangtuda power station. Together, the Rogunsk and Sangtuda stations should allow Tajikistan to cease importing electricity from its neighbors and potentially become a major energy exporter in the region.

The Tajik government also is resuming a program to build 15 small hydroelectric plants. Russia's Energomash has begun delivering equipment for five such plants at Andarbak (250-MW capacity), Shkev (74 MW), Yemts (100 MW), Langar (60 MW), and Yamchun (150 MW).

COUNTRY OVERVIEW

President: Emomali Rakhmonov (since November 6, 1994; head of state and Supreme Assembly chairman since November 19, 1992)
Prime Minister: Oqil Oqilov (since January 20, 1999)

Independence: September 9, 1991 (from Soviet Union)
Population (7/00E): 6.4 million
Location: Central Asia, west of China
Size: 143,100 sq. miles, slightly smaller than Wisconsin
Major Cities: Dushanbe (capital)
Languages: Tajik (official), Russian
Ethnic Groups: Tajiks (64.9%), Uzbek (25%), Russian (3.5%), other (6.6%)
Religions: Sunni Muslim (80%), Shi'a Muslim (5%), other (15%)

ECONOMIC OVERVIEW

Minister of Economy & Trade: Hakim Soliyev
Minister of Finance: Safarali Najmuddinov
Currency: Somoni (introduced October 30, 2000)
Market Exchange Rate (4/20/2001): US $1=2.35 somoni
Nominal Gross Domestic Product (GDP) (2000E): $1.0 billion
Real GDP Growth Rate (2000E): 8.3%; **(2001E):** 4.7%
Inflation Rate (Change in Consumer Prices, Dec. 1999-Dec. 2000E): 60.6%; **(2001E):** 25.0%
Official Unemployment Rate (2000E): 3.0% (includes only officially registered unemployed; also large numbers of underemployed workers and unregistered unemployed people)
Current Account Balance (2000E): $149 million; **(2001E):** $152 million
Major Trading Partners: Uzbekistan, Russia, Netherlands, Liechtenstein, Switzerland, Kazakhstan (1997)
Merchandise Exports (2000E): $779 million; **(2001E):** $826 million
Merchandise Imports (2000E): $655 million; **(2001E):** $699 million
Merchandise Trade Balance (2000E): $124 million; **(2001E):** $127 million
Major Exports: aluminum, electricity, cotton, fruits, vegetable oil, textiles
Major Imports: electricity, petroleum products, aluminum oxide, machinery and equipment, foodstuffs
External Debt (12/00E): $1.2 billion

ENERGY OVERVIEW

Minister of Energy: Abdullo Yorov
Chairman, State Committee for Oil & Gas: Salamsho Muhabbatov
Proven Oil Reserves (1/1/01E): 12 million barrels
Oil Production (2000E): 370 barrels per day (bbl/d)
Oil Consumption (2000E): 29,000 bbl/d
Net Oil Imports (2000E): 28,630 bbl/d
Natural Gas Reserves (1/1/01E): 200 billion cubic feet (Bcf)
Natural Gas Production (1999E): 2.1 Bcf; **(2000E):** 2.4 Bcf
Natural Gas Consumption (1999E): 41.3 Bcf
Net Natural Gas Imports (1999E): 39.2 Bcf
Coal Production (1999E): 22,000 tons; **(2000E):** 20,700 short tons
Coal Consumption (1999E): 13,800 short tons
Electric Generation Capacity (1999E): 4.4 gigawatts, GW

Electricity Production (1999E): 15.6 billion kilowatt hours (Bkwh), of which 15.3 Bkwh (98%) was from hydroelectric dams
Electricity Consumption (1999E): 14.7 Bkwh
Net Electricity Exports (1999E): 0.9 billion kWh

ENVIRONMENTAL OVERVIEW

Minister of Environmental Protection: Usmonqul Shokirov
Total Energy Consumption (1999E): 0.26 quadrillion Btu* (<0.1% of world total energy consumption)
Energy-Related Carbon Emissions (1999E): 1.7 million metric tons of carbon (<0.1% of world total carbon emissions)
Per Capita Energy Consumption (1999E): 40.7 million Btu (vs. U.S. value of 355.8 million Btu)
Per Capita Carbon Emissions (1999E): 0.27 metric tons of carbon (vs. U.S. value of 5.5 metric tons of carbon)
Energy Intensity (1999E): 162,056 Btu/$1990 (vs U.S. value of 12,638 Btu/$1990)**
Carbon Intensity (1999E): 1.1 metric tons of carbon/thousand$1990 (vs U.S. value of 0.19 metric tons/thousand $1990)**
Sectoral Share of Energy Consumption (1998E): Industrial (52.9%), Transportation (31.4%), Residential (14.4%), Commercial (1.3%)
Sectoral Share of Carbon Emissions (1998E): Transportation (87.6%), Industrial (9.6%), Residential (2.6%), Commercial (0.2%)
Fuel Share of Energy Consumption (1999E): Oil (21.6%), Natural Gas (16.0%), Coal (0.9%)
Fuel Share of Carbon Emissions (1999E): Oil (62.2%), Natural Gas (34.5%), Coal (3.3%)
Renewable Energy Consumption (1998E): 146.3 trillion Btu* (2% increase from 1997)
Number of People per Motor Vehicle (1998): 500 (vs. U.S. value of 1.3)
Status in Climate Change Negotiations: Non-Annex I country under the United Nations Framework Convention on Climate Change (ratified January 7th, 1998). Not a signatory to the Kyoto Protocol.
Major Environmental Issues: Inadequate sanitation facilities; increasing levels of soil salinity; industrial pollution; excessive pesticides; part of the basin of the shrinking Aral Sea suffers from severe overutilization of available water for irrigation and associated pollution.
Major International Environmental Agreements: A party to Conventions on Biodiversity, Climate Change, Desertification, Environmental Modification, and Ozone Layer Protection.

* The total energy consumption statistic includes petroleum, dry natural gas, coal, net hydro, nuclear, geothermal, solar and wind electric power. The renewable energy consumption statistic is based on International Energy Agency (IEA) data and includes hydropower, solar, wind, tide, geothermal, solid biomass and animal products, biomass gas and liquids, industrial and municipal wastes. Sectoral shares of energy consumption and carbon emissions are also based on IEA data.

**GDP based on EIA International Energy Annual 1998

ENERGY INDUSTRIES

Organization: Tajikneftegaz (oil and gas exploration, drilling, and production); Tajikgaz (state-run gas distribution company); Tajikangisht (state-coal enterprise); Barq-i Todjik/Tajikenergo (electricity

generation, transmission, and distribution)

Sources for this report include: CIA World Factbook 2000; U.S. Department of Commerce's Business Information Service for the Newly Independent States (BISNIS); Economist Intelligence Unit ViewsWire; U.S. Energy Information Administration; Oil and Gas Journal; Petroleum Economist; Radio Free Europe/Radio Liberty; Reuters; WEFA Eurasia Economic Outlook.

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U.S. International Trade Administration, Energy Division
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